

What Is Claimed Is:

Sub
a1
1. A liquid crystal display, comprising:

a liquid crystal polarity inversion driver determining whether a polarity of a liquid crystal is inverted and inverting the polarity of the liquid crystal in accordance with the determined result; (0008), (0017) [0643-6044]

10-1
a first data polarity inversion driver determining whether a first data transition is occurred in first data, and inverting the polarity of the first data in accordance with the determined result; and (0019-21) [0049]

10-2
a second data polarity inversion driver determining whether a second data transition is occurred and inverting the polarity of the second data in accordance with the determined result. [0049]

2. The liquid crystal display according to claim 1, wherein the first data polarity inversion driver includes,

(11)
a first data transition part determining whether the first data transition is occurred in the first data and outputting a first signal; (INV) (0619-21) [0053]

(21)
a first data polarity inversion signal summer counting the number of the first signal that a data polarity is changed

according to the first data transition and determining whether an output level is high or low; and (0022) [0057]

a first data polarity inversion signal output part receiving the first signal and the determined output level from the first data transition part and the first data polarity inversion signal summer and outputting an inverting signal for inverting output data. (ddl-24) 10023 [Fig 4]

3. The liquid crystal display according to claim 1, wherein the second data polarity inversion driver includes, 10-2

a second data transition part determining whether the second data transition is occurred in the second data and outputting a second signal;

a second data polarity inversion signal summer counting the number of the second signal that a data polarity is changed according to the second data transition and determining whether an output level is high or low; and

a second data polarity inversion signal output part receiving the second signal and the determined output level from the second data transition part and the second data polarity inversion signal summer and outputting an inverting signal for inverting output data. [0052]

4. The liquid crystal display according to claim 2,
wherein the first data transition part includes first and
second ⁽³⁸⁾ flip-flops ⁽¹⁴⁷⁾ and an exclusive logical sum gate ⁽⁴⁶⁾ ⁽²³⁾ comparing
current data with previous data to determine whether the first
data transition is occurred in accordance with the compared
result. ⁽⁰⁰²¹⁾ ⁽⁰⁰⁶³⁾

5. The liquid crystal display according to claim 3,
wherein the second data transition part includes first and
second flip-flops and an exclusive logical sum gate comparing
current data with previous data to determine whether the
second data transition is occurred in accordance with the
compared result. ⁽⁰⁰⁵³⁾

6. The liquid crystal display according to claim 2,
wherein the first data polarity inversion signal summer
includes,

an adder ^(42,44) adding the number of data with a data transition
from the first data transition part; and

a majority detector ⁽⁴⁶⁾ determining whether the added number
of the data is higher than a first reference value. ⁽⁰⁰²²⁾ ⁽⁰⁰⁵⁷⁾

7. The liquid crystal display according to claim 3, wherein the second data polarity inversion signal summer includes,

an adder adding the number of data with a data transition from the second data transition part; and

a majority detector determining whether the added number of the data is higher than a second reference value. [0057]

8. The liquid crystal display according to claim 2, wherein the first data polarity inversion signal output part includes,

(48,50)
a multiplexor receiving a first polarity inversion signal from the first data polarity inversion signal summer (32) to invert the output data. (0023)

9. The liquid crystal display according to claim 3, wherein the second data polarity inversion signal output part includes,

a multiplexor receiving a second polarity inversion signal from the second data polarity inversion signal summer to invert the output data. (061045)

10. The liquid crystal display according to claim 2,
wherein the first and second data are odd data and even data,
respectively. [1038-6039]

claim 1
11. A method of driving a liquid crystal display having
first and second data polarity inversion drivers, the method
comprising:

dividing input data by ^(odd) first and ^(even) second data;

inputting the first and second data to the first and
second data polarity inversion drivers, respectively;

determining the number of first and second data
transitions in the first and second data, respectively; and

inverting a polarity of the first and second data in
accordance with the determined results.

claim 2
12. The method according to claim 11, wherein inverting
a polarity of the first and second data includes,

comparing current first data with previous odd data to
determine whether there is the first and second data
transitions;

adding the number of the first and second data having the
first and second data transitions; and

inverting the first and second data if the number of the added data is more than a half of a total number of the input data bit and outputting the input data without an inversion if the number of the added data is less than or equal to a half of the total number of the input data bit.

13. The method according to claim 12, wherein the first and second data are odd and even data, respectively. (Fig 5) [0038-39]

14. The method according to claim 12, wherein the total number of the input data bit is 18. (0022) obvious

15. The method according to claim 12, wherein the number of first and second data bits is 9. (0022) obvious